

REMARKS

Claims 1-24 are pending in the application. Claims 6-19 and 21-23 are withdrawn from consideration.

Claims 1-5, 20 and 24 stand rejected under rejected under, apparently, 35 USC 103 as obvious over USP 6,563,993 to Imamura et al. ("Imamura"). Applicants respectfully traverse this rejection.

The undersigned attorney acknowledges the examiner's courtesy in granting a telephone interview on September 10, 2007. The interview considered the compliance of Claim 25 with 35 USC 112, first and second paragraphs, with regard to clarity of claim language and adequate support in the specification. The examiner agreed that the claim did comply with the foregoing statutory provisions.

Additionally, the examiner agreed that the omission in Claim 1-c of "over the active section of the light pipe" made this claim element more consistent with Claim element 1-b.

Claim 1

Element 1-c of Claim 1 has been amended to point out more clearly and succinctly Applicants' invention. Original Claim 1-c provides antecedent support for the changes.

Among the features of Claim 1 that distinguish over Imamura is element (c), stating:

[T]he light-extraction means comprising a single strip of material; said single strip having light-scattering material comprising inorganic material; the strip being discrete from core material and from any cladding material on the core.

In particular, element (c) of Claim 1 states that the strip is "discrete from * * * any cladding material on the core." Applicants are fully cognizant that the examiner has suggested that Example 8 of Imamura shows that the "light diffusive and reflective film" of Imamura "is made from entirely different materials relative to the cladding, thereby resulting in structure wherein the strip is discrete from the cladding in all reasonable meanings of the word." Office action at 5. However, the following shows, to the contrary, that the ETFE resin binder forming the light diffusive and refractive film of Example 8 is optically indistinguishable from the ETFE resin forming the clad and, thus, itself constitute a clad.

To a person of ordinary skill in the technology or art field relating to an optical fiber such as claimed, "cladding" means "one or more layers of material of lower refractive index, in

intimate contact with a core material of higher refractive index. ATIS TELECOM GLOSSARY 2000, T1.523-2001, for "cladding," cited from <http://www.atis.org/tg2k/> (visited on 7/17/2007). That Imamura's cladding material is "of lower refractive index" than the core material follows from Imamura at Col. 5, lines 30-33.

Example 8 of Imamura teaches the use of ETFE of refractive index of "about 1.43" for *both* the nominal "clad" and the resin "binder" of the nominal "light diffusive and reflective film." Moreover, Imamura specifically teaches the use of ETFE—tetrafluoroethylene copolymer—for forming the clad. Col. 4, lines 57-62.

From the foregoing two paragraphs, a person of ordinary skill in the art would consider that the resin "binder" of the light diffusive and reflective film constitutes "cladding" according to the above-cited ATIS TELECOM GLOSSARY 2000 definition. This is because, as that definition reads, the resin binder constitutes "one or more layers of material of lower refractive index, in intimate contact a core material of higher refractive index."

The fact that the ETFE used for the clad might have a different tradename than the resin binder for the light diffusive and reflective film does not detract from the virtually indistinguishable optical properties of the differently branded ETFE.

Further, what makes the resin binder of Imamura's Example 8 white is inclusion of titanium dioxide, "the most widely used white pigment". WIKIPEDIA definition of "titanium dioxide" from http://en.wikipedia.org/wiki/Titanium_dioxide, visited on 8/28/07. So, the whiteness imparted by the titanium dioxide particles does not remove the resin binder of the light diffusive and reflective layer from the definition of "cladding" described above.

Grammatically as well, Imamura interchangeably refers to the cladding and the light diffusive and reflective film. Thus, at Col. 5, lines 31-38, Imamura, when the light diffusive and reflective film is "extended into with the core portion" (apparently in reference to Figure 3), "the cross section of the clad is in the shape of a circle having a protrusion that extends into the inner portion of the core." In Imamura's Figure 3, the circle is 2 and the film is 1. Imamura refers to both as clad according to the foregoing quotations from Imamura's specification.

The examiner also suggested that the "strip" of Claim 1 "functions as an inefficient cladding." Office action at 8. The examiner further suggested that whether one calls Imamura's light diffusive and reflective region cladding is "a matter of opinion/semantics." Office action at 8. Applicants respond that a person of ordinary skill in the art would understand from Claim 1 that the recited strip—being discrete "from any cladding material on the core"—would lack the

requisite index of refraction according to the above definition of "cladding" to constitute cladding. So, there is no issue of opinion/semantics on this matter owing to the overriding clarity of the definition of "cladding" for an optical fiber.

Dependent Claims

The claims depending from Claim 1 recite further features of the invention so as to distinguish over the prior art with even greater force than Claim 1. For instance, this is true of Claim 24.

Claim 24 has been amended to recite that the "strip comprises discrete regions of light-scattering means with predetermined spacing apart from each other along longitudinal dimension of the strip." The specification at page 8, lines 5-7 provide antecedent support for the claimed features, which relate by way of example to Figure 15. Imamura fails to teach or suggest the foregoing claimed feature, so that Claim 24 should be held allowable.

Applicants point out that Claim 24 does not fall within the elected Species A and B and Subspecies E, but do not see what species and subspecies Claim 24 would come within.

Additionally, new Claim 25 geometrically defines the lack of protrusion of the strip into a core of circular cross section. Such geometry is apparent from the specification at page 4, lines 26-29 and from Figures 14a and 14b. In such an embodiment, the circular cross section of the core remains substantially unchanged.

Conclusion

In view of the foregoing, Claim 1 and its dependent Claims 2-5, 20 and 24-25 should be held allowable.

Consideration of generic claim under 37 CFR § 1.141 (a)

In addition to consideration of elected Species A and B, and Subspecies E, Applicants request consideration of claims to all subspecies reading on such "single strip" of material. This is in view of the allowability of Claim 1 reciting a "single strip" of light-extraction material. See 37 CFR § 1.141 (a). The relevant subspecies includes Subspecies F, G and H.

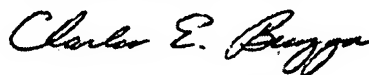
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As to Subspecies B, the examiner apparently accepted Applicants' clarification in their Amendment dated May 26, 2006, that "Species A and B should be consolidated." P. 10. Thus, the office action allows the previous amendment to Claim 1, which the office action states, "includes limitations found in species B" (p. 1, 1st para.).

I certify that the foregoing document and any document(s) referenced below are being filed electronically with the USPTO using the private PAIR system on the date stated below.

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